Trowbridge, observing with a refractor and power of 55 diameters, reports no spots on October 3rd, 5th, 6th, 7th, 8th, 11th, 13th, 17th, 20th, 21st, 22nd, 24th, 25th, 26th, 28th, 29th, observations generally made in the morning. November 1st, 1 p. m., saw one spot one third the way across the solar disk. 2nd, same spot still visible.

NOTES AND EXTRACTS.

Lightning Conductors.—A very useful paper on lightning conductors was read at the British Association for the Advancement of Science by R. Anderson. He asserts that the terrible losses that are caused by lightning is to be attributed to the grossest negligence in neglecting to provide lightning conductors, in placing them in the wrong positions, and in omitting to have them properly tested and protected so as to secure their constant efficiency. These matters are attended to very systematically in France, but much neglected in England and America.

Sunspots and Rain-fall—A paper by C. Meldrum of some interest upon this subject is published in a recent number of "Nature." He therein compares Wolf's sunspot numbers with the rain-fall at Madras 1816–77; Edinburgh 1824–72; Paris 1824–1872, and concludes that there is an intimate connection between sunspots and rain-fall. This paper is followed by one by Mr. F. Chambers who compares the Bombay barometric observations with the sunspot record, and thinks that they lead to the conclusion that the sun is hottest about the time of maximum spots, and coldest at time of minimum spots.

Auroras.—In the report of C. Weyprecht on the aurora observations of the Austro-Hungarian Arctic Expedition, 1872–4, he states that after careful study he finds no connection between the aurora and the subsequent wind or weather.

Balloons.—An important work on the application of the balloon to science and meteorology has just been published by Tissandier of Paris.

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